Position Analysis Questionnaire (PAQ)

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HP Activity Categories:
Identification of competence requirements, training needs and selection process

Resource Type:
Method

Abstract:

The Position Analysis Questionnaire (PAQ) is a structured job analysis questionnaire that measures job characteristics and relates them to human characteristics.

The characteristics consider

(1) information input
(2) mental processes
(3) work output (physical activities and tools)
(4) relationships with others
(5) job context (the physical and social environment)
(6) other job characteristics (such as pace and structure)

The data can be used for personnel specification and skills identification for training. In its latest (PAQe, 2005) version the PAQ analyzes jobs in terms of 300 job elements. They are organized into eight groups (see below).

A PAQc is also available with fewer elements items. These elements are of a worker-oriented nature, meaning that they characterize or imply the human behaviours that are involved in various jobs.

Each job element is rated on six scales: extent of use, importance, time, possibility of occurrence, applicability, and a special code for certain jobs.

Job analysts or supervisors usually complete the position analysis questionnaire. In some instances managerial, professional, or other white-collar job incumbents fill out the instrument. The reason for such limitations is that the reading requirements of this questionnaire is at the college-graduate level.

References

Developer and source:
McCormick et al 1972

Year of development / publication, updates etc:
2005 PAQe

General Description
Purpose:

Common uses of the PAQ are:

Develop an "internal equity" compensation model. PAQ scores can be used to compare jobs within an organization in order to achieve internal equity in compensation. This approach is different from, yet complements, a market based strategy. The position analysis questionnaire has been used for job evaluation, performance appraisal, compensation planning, assessment-centre development, determination of job similarity, development of job families, vocational counselling, determination of training needs, and job design.

Develop selection criteria for a specific job. The PAQ assists the user to identify the right person for a specific job by identifying aptitudes, temperaments, interests, and job demands of the position.

The PAQ is used extensively by researchers studying the nature of work. Vocational experts use PAQ and its resultant enhanced Dictionary of Occupational Titles to assist in the disability determination process.

Type (e.g. observation, questionnaire, interview, checklist, measurement instrument, etc.):

Questionnaire

Technical description of method or tool etc

Description of the content/study:

PAQ Questionnaire (traditional PAQc form)

The original Position Analysis Questionnaire (PAQc), in use since 1972, is a structured job analysis questionnaire that measures 187 job characteristics and relates them to human characteristics (rather than describing the tasks, technologies, or duties of jobs). Scoring is described above.

PAQe

The enhanced Position Analysis Questionnaire (PAQe), in use since 2004, is a structured job analysis questionnaire that measures the PAQc's 187 job characteristics plus the new eDOT measures and ~35 selective characteristics of occupations (SCOs) highly predictive of pay. Also includes items relevant to the FLSA, SSA Disability, PMPQ, and others. All scoring is now online.

The PAQe analyses the following areas

1. Supervisory and Managerial Responsibilities
   1.1. Leadership competencies
   1.2. Scope of supervision and management
   1.3. Coordination activities

2. World of Work (Environments; positions with which an incumbent interacts)
   2.1. Workplace diversity (multi-lingual; multi-cultural)
   2.2. Level and impact of position
2.3. Organizational position (organizational requirements)

2.3.1. Place within organizational structure

2.3.2. Special demands relevant to organization in general

2.4. Responsibilities

2.5. Decision making, reasoning, planning, and scheduling (Levels of responsibility)

3. Cognitive Skill and Ability Demands (Including KSAs, training, credentials, etc.)

3.1. Mental knowledge and understanding

3.2. Literacy and mathematics

3.3. Mental and activity demands (largely demands requiring adjustment or adapting)

4. People Demands

4.1. Personal and social aspects summary (Scaled ?People functions? from FJA)

4.2. Personal and social aspects and communications required

4.3. Communications (one overall item)

4.4. Oral communications

4.5. Written or print communication

4.6. Other communications

4.7. Personal communication and interpersonal relationships

4.8. Types of job-required personal contact

5. Information and Data Demands

5.1. Information and data summary (Scaled ?Data functions? from FJA)

5.2. Visual sources of job information

5.3. Non-visual sources of job information

5.4. Sensory and perceptual

5.5. Estimation of information

5.6. Information systems

5.7. Information processing activities

6. Work Output

6.1. Work output summary (Scaled ?Things functions? from FJA)
6.2. Use of hand-held tools or instruments
6.3. Use of other hand-held devices
6.4. Use of stationary devices
6.5. Use of control devices on equipment
6.6. Transportation and mobile equipment
6.7. Manual activities

7. Physical Demands
7.1. Full body activity ? Strength
7.2. Full body activities, body positions and postures
7.3. Manipulation and coordination activities
7.4. Outside physical working conditions
7.5. Indoor physical working conditions
7.6. Physical hazards
7.7. Other physical job activities
7.8. Job work period

8. Enhanced Analysis Input
8.1. Pay or income items
8.2. Aptitudes
8.3. Interests and sense of accomplishment

Technical requirements for using the method, tool, etc:
Entered on PDF form sent by publisher. Scoring available on-line.

Measure/Response Type:
Each of the 300 statements has just one response scale, but scales may change from one statement to the next.

Results obtained and interpretation:

Analyzing Position Analysis Questionnaire Data

Data from the position analysis questionnaire can be analyzed in several ways. For a specific job, individual ratings can be averaged to yield the relative importance of and emphasis on various job elements, and the results can be summarized as a job description. The elements can also be clustered into a profile rating on a large number of job dimensions to permit comparison of this job with others. Estimates of employee aptitude requirements can be made. Job evaluation points can be estimated from the items related to pay. Finally, an occupational prestige score can be computed. Analysts can have position analysis questionnaire data
computer-analyzed by sending the completed questionnaire to PAQ Services.

**Evaluation**

Advantages:

See results section above.

Disadvantages:

No published validity data.

Readability problems, coupled with what amounts to a change in instructions with each change in response scale suggests that incumbents in jobs requiring little verbal ability may find the PAQ difficult to complete.

Alternative Methods:

F-JAS

**Usability (ease of use, efficiency, effectiveness)**

Ease of use:
medium

Efficiency:
medium

Effectiveness:
medium

Constraints concerning conditions of use:

Many statements are lengthy and somewhat detailed, with a variety of examples, and many contain long or uncommon words. This may result in less ambiguity in PAQ items for respondents who understand them, but they can be a challenge to people who do not read well. Readability problems, coupled with what amounts to a change in instructions with each change in response scale, suggest that incumbents in jobs requiring little verbal ability may find the PAQ difficult to complete. Such problems are reason enough for the strong recommendations that (a) the PAQ not be completed by job incumbents, and (b) that job analysts should complete a two-day training program in PAQ use. [Extract from Robert Guion, Assessment, Measurement, and Prediction, 2nd edition, Psychology Press, 2009]

Reliability:

The position analysis questionnaire has been shown to have a demonstrated level of reliability. An analysis of 92 jobs by two independent groups yielded a reliability coefficient of 0.79. (See McCormick, E.J., & Jeanneret, P.R., ?Position Analysis Questionnaire (PAQ)?, in Gale, S., Ed. The Job Analysis Handbook for Business, Industry and Government, Vol.2., New York, John Wiley, 1988.)

Validity:

n/a

Required effort (to conduct & to analyse):

Medium to high effort for conducting the method and analysing the data obtained.

**Level of HF expertise needed (required user qualification)**
Medium: limited level of expertise required, some training required
Other expertise needed (required user qualification):
Reasonable level of reading expertise required.

**Cost Information**

Licensed product available from publisher.
Price: $39.00/each application as at 22/05/2012 therefore, the cost is considered as
Very low: (<100 €) low costs to purchase or free license, no special devices necessary
Experiences of use by SESAR partners (including references):
None
Reported and/or published experiences of use (including references):
n/a
Applicability to lifecycle phase (E-OCVM):
V1-V2-V3
Application Area:
Applicable to all jobs fields
Keywords:
Job assessment, role evaluation
Short Description:
The Position Analysis Questionnaire (PAQ) is a structured job analysis questionnaire that measures job characteristics and relates them to human characteristics, such as information input, mental processes, work output, relationships with others, job context. The obtained data can be used for personnel specification and skills identification for training.

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